Debbie Beadle

From: Lita Hachey
Sent: Tuesday, May 28, 2013 10:05 AM
To: Debbie Beadle
Cc: Evan Maxim; Melonie Anderson; 'rcrispin1@yahoo.com'
Subject: FW: Proposed ECA Landslide Hazard Amendments
Attachments: Proposed ECA Landslide Hazard Amendments.pdf

EXHIBIT NO. CC78.

Debbie,
Attached are comments for the ECA from Mr. Crispin.
Please post.

Thank you,

Lita Hachey
Administrative Assistant to the City Clerk
Administrative Services Department
City of Sammamish
425-295-0512

Please Note: I have a new email address - lhachey@sammamish.us
and we have a new City Web Address – www.sammamish.us

From: R.Crispin [mailto:rcrispin1@yahoo.com]
Sent: Tuesday, May 28, 2013 10:02 AM
To: Lita Hachey
Cc: Evan Maxim
Subject: Fw: Proposed ECA Landslide Hazard Amendments

Lita Hachey,
Hello. I have received an out-of-office autoreply from Melonie Anderson's e-mailbox. I have been having difficulty getting my ECA comments in the hands of the correct staff individual. I think that might be Evan Maxim, and I'm guessing at his e-mail address this time through. Could you follow-up with him or fwd my ECA comments to the appropriate individual?
Thank-you
Rory Crispin
----- Forwarded Message -----
From: R.Crispin <rcrispin1@yahoo.com>
To: "manderson@ci.sammamish.wa.us" <manderson@ci.sammamish.wa.us>
Sent: Tuesday, May 28, 2013 9:29 AM
Subject: Fw: Proposed ECA Landslide Hazard Amendments

Melonie Anderson,

I sent in my ECA proposed amendment comments at 8:36 am (beginning of business?) this morning but received a failure notice using ECA@sammamish.us (that is the contact information on the ECA main page). I also sent it to the entire city council, and that appears to have been successful. Could you make sure that the appropriate individual (Evan Maxim?) receives my ECA comments.

Thank-you,

Rory Crispin

----- Forwarded Message -----

From: R.Crispin <rcrispin1@yahoo.com>

To: "ECA@sammmamish.us" <ECA@sammmamish.us>; "citycouncil@ci.sammamish.wa.us" <citycouncil@ci.sammamish.wa.us>

Sent: Tuesday, May 28, 2013 8:36 AM

Subject: Proposed ECA Landslide Hazard Amendments

See Attachment:

Proposed ECA Landslide Hazard Amendments.pdf

Proposed ECA Landslide Hazard Amendments

(Conformity to WAC for development on or near geological hazards)

Issue 1: SMC 21A.50.260 does not provide a comprehensive opportunity to reduce or remove a landslide hazard in order to improve development conditions.
Issue 2: SMC 21A.50.260 does not provide opportunity to develop on or immediately next to a critical area slope with a rise over 20 ft, even if no additional risk exists

Solution: Provide a provisional mechanism in the code, perhaps a variance, to allow consideration for developmental use of slopes over 20 ft in height, or use of the land closer than 30ft from the toe or top, when the critical area hazard can be reduced or mitigate through engineering, design, or modified construction.

Amendment 1: *The City shall approve proposals in a geologically hazardous area as appropriate based upon the effective mitigation of risks posed to property, health and safety, in accordance with WAC 365-190-120. The objective of mitigation measures shall be to render a site containing a geologically hazardous site as safe as one not containing such hazard. Avoidance sequencing of 21A.50.135 does not apply.*

Amendment 2: *Subject to the conditions and requirements of 21A.50.260 (2), for slopes with a vertical elevation change up to 30 ft, the buffer may be reduced to a minimum of 10ft and the building setback may be reduced to a minimum of 5 ft.*

Discussion:

WAC 365-190-120 [1] establishes a sequence wherein one can first investigate construction in the critical area by reducing or mitigate the hazard through engineering, design, or modified construction. Then, if technology cannot reduce risks to acceptable levels, building in geologically hazardous areas must be avoided.

---

[1] **WAC 365-190-120** Geologically hazardous areas.

" (1) Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard.

(2) Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices so that risks to public health and safety are minimized. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas must be avoided. The distinction between avoidance and compensatory mitigation should be considered by counties and cities that do not currently classify geological hazards, as they develop their classification scheme."

Proposed ECA Landslide Hazard Amendments

Though the city code does contain a provisional exemption for development on slopes up to 20 ft high [2], above 20 ft the slope is to be avoided by at least 30 horizontal feet (15 ft reduced buffer [3] + 15 ft building setback) from the top or toe of that slope. There is no transition stage, just a jump from the opportunity of full use at 20 ft, to full avoidance above 20 ft. This mandatory avoidance can be a big loss of potentially usable space and loss of opportunity for the property owner, possibly forcing them into a postage size building area or into a reasonable use exemption. The intent of the WAC is to reduce risk through engineering, NOT to protect a hazard. A building's foundation can act as a retaining wall or a deep pile foundation can bear on soil below a point affecting a slope. Some cities even specify these techniques within their code. A little flexibility is needed in Sammamish's code.

Code Comparison

During the Planning Commission meetings, AMEC identified Seattle's Department of Planning and Development Landslide Study as a best available science report. The Planning Commission sought to discuss expanding the landslide hazard exemption, but subsequent meetings did not facilitate this discussion.

Key provisions of Seattle's landslide hazard code consists of the following:

1. The baseline steep slope buffer is only fifteen-foot (15') from the top and toe of a slope.
2. Reduction of the 15 ft buffer is based on considerations of construction method effects on slope stability, techniques used to minimize disruption of existing topography, and remedies regarding soils and hydrology constraints.
3. Development can be located on slopes less than 20 vertical feet if there is no adverse impact to the steep slope area.
4. Variance relief allows for development of 30% of the critical slope over 20 vertical ft.

Seattle's landslide hazard code is more consistent with the intent of WAC 365-190-120, allowing more usable options of one's property for safe development up close to the slope edge, or even on the slope, when conditions warrant. Though no other municipality has the experience with landslide hazards as does Seattle, some of the surrounding cities have portions of similar code:

---

[2] SMC 21A.50.260 (7) (a) exempts slopes that are 40 percent or steeper with a vertical elevation change of up to 20 feet if no adverse impact will result from the exemption based on the City's review of and concurrence with a soils report prepared by a geologist or geotechnical engineer.

[3] SMC 21A.50.260 (1) states that a minimum buffer of 50 feet shall be established from all edges of the landslide hazard area but SMC 21A.50.260 (2) specifies conditions that allows that buffer to be reduced to a minimum of 15 feet.

Proposed ECA Landslide Hazard Amendments

1. The exemption for development on slopes up to 20 ft is common throughout King County.
2. Redmond does not require a building setback from a critical area buffer, though its baseline buffer for slopes is 50 ft, reducible to 15 ft.
3. Issaquah buffer for slopes is 50 ft, reducible to 10 ft, but development requires a slope stability factor of safety of 1.5.

Reasoning of Proposed Amendments

Amendment 1 allows for the implementation of slope stability techniques in facilitating the reduction or removal of a hazard, where currently avoidance of the hazard would be mandated through the sequencing provision. In the Planning commission meetings we heard a Sammamish horror story where a property owner wanted to remove a slope hazard on his property, described as a large "pile of dirt", to site his house in its place, but was instead forced to avoid the critical area pile-of-dirt and site his house on another spot, only to end up removing the pile-of-dirt hazard anyway to provide a fire truck turn-around where otherwise he would not have had to.

Amendment 2: It is only common sense to provide a transition from full development use of a slope under 20 ft high, to avoidance above 20 ft high. If a qualified site study determines that site development is safe with no added risk whether a building is sited on the slope or near its edge, what does it matter that the slope is 19 ft high or 21 ft high? The amendment balances Seattle's 15 ft maximum total setback requirements with the new tougher slope stability factor of safety [4] in the new ECA code.

Rory Crispin
P.O. Box 40443
Bellevue, WA 98015

Date: 5-28-2013

[4] New slope stability factor of safety is 1.5. Issaquah requires similar factor of safety for landslide hazard development, but their slope edge buffer is reducible to 10 ft, just as Sammamish's used to be prior to 2006. This buffer criteria was used in the proposed amendment.